

REMARKS

The Office Action mailed September 1, 2005 has been carefully reviewed and, in view of the above amendments and following remarks, reconsideration and allowance of the application are respectfully requested.

I. Claim Summary

Claims 1-30 are currently pending in the application, with claims 1, 16, and 26-29 being independent claims. No claims are cancelled; claims 25-30 are added; and claims 1, 13, 16, and 21 are amended, in accordance with the above amendments. Claims 6, 11, 20, and 22 are withdrawn from consideration.

Support for the various amendments is found in the application at issue. More particularly, support for the amendment of:

- Claim 1 is found at paragraph 65; and
- Claim 16 is found at paragraphs 61 and 91.

In addition, support for:

- Claim 25 is found at paragraphs 61 and 91;
- Claim 26 is found at paragraph 57 and 65;
- Claim 27 is found at paragraph 57 and 65;
- Claim 28 is found in Figures 7-9E;
- Claim 29 is found in Figures 9A-9F; and
- Claim 30 is found in Figures 9A-9E.

II. Office Action Summary

The following claim rejections were submitted by the Examiner in the outstanding Office Action:

- Claims 1 and 15 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Number 6,918,198 to Chi;
- Claims 1-5, 7-8, 12, 14-15 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,009,637 to Pavone;
- Claims 9-10, 16-19, 21, and 23-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chi; and

- Claims 9-10, 16-19, 21, and 23-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Pavone.

In addition, the Office Action objected specifically to claims 1, 10, 13, and 21 under 35 U.S.C. §112, second paragraph as being indefinite.

III. Discussion of §112 Objections

Claims 1, 13, and 21 are amended to overcome the §112 objection. Regarding claim 10, the Applicants respectfully submit that a reinforcing structure formed of two materials is within the scope of the elected embodiment, (i.e., Figures 1-11). The application at issue states that "Although reinforcing structure 40 may be formed from a single material, two or more materials may be incorporated into reinforcing structure 40 in some embodiments of the invention. For example, upper portion 41 may be formed from a material that exhibits lesser stiffness than a material forming lower portion 42 and connecting portions 43 (Application, paragraph 66). The presence of two materials for the reinforcing structure may not be specifically depicted (and may not be visible), but the above discussion demonstrates that the reinforcing structure of Figures 1-11 may be formed of two materials. Based upon the above discussion, the Applicants respectfully submits that the objections of claims 1, 10, 13, and 21 be withdrawn.

IV. Discussion of Applied Prior Art

Discussion of Chi

Chi discloses an article of footwear having a sole that includes an air cushion (element 35) and an outsole (element 31). The air cushion is an inflated and fluid-filled structure with a lower surface that defines a plurality of grooves (elements 3522). The outsole has a generally horizontal base (element 310) and a peripheral flange (element 312) extending upward from the base to define a concave structure that receives the air cushion. In addition, an upper surface of the base forms various studs (element 311) that correspond in position with the grooves of the air cushion and extend into the grooves. The air cushion is made from a polyurethane material. The outsole is made from a material with a hardness that is greater than a hardness of the air cushion. (Chi, column 3, lines 6-54).

The sole is manufactured in accordance with the steps of Figure 5, which includes (a) preparing the air cushion, (b) preparing the outsole, (c) placing the air cushion and outsole, in

addition to the upper of the footwear, in a mold, (d) inflating the air cushion, and (e) thermally molding the upper, air cushion, and outsole. This process is discussed in greater detail at column 3, line 62 through column 4, line 10, but appears to be inaccurately described in that the discussion includes a disclosure of the air cushion contacting the mold, rather than the peripheral flange. Despite this inaccuracy, it is apparent that the air cushion is inflated prior to bonding between the air cushion and the outsole.

Discussion of Pavone

Pavone discloses an article of footwear having a sole that includes a fluid-filled core (element 50) and a molding (element 53), as depicted in Figure 5. The core has a plurality of helium modules (elements 30-32) that are surrounded by the molding. Portions of the core are exposed through various openings (elements 20-22) in the molding. A lower surface of the core includes various indentations that are formed between adjacent modules, and various supports (elements 23-27) extend into the indentations when the core and molding are joined. The core is formed from a silicone material (Pavone, column 2, lines 52-53), whereas the molding is formed from a rubber foam (Pavone, column 3, lines 46-47).

The general procedure for forming the core is disclosed in Figures 6 and 7A-7E, wherein a mold is used to impart shape to the core and the core is filled with helium. The general process for forming the molding is disclosed in Figure 8, wherein the inflated core is placed within a mold and a foam is injected into the mold and around the core to shape the molding.

V. Discussion of Claims

Discussion of Independent Claim 1

Independent claim 1 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a fluid. The reinforcing structure is formed of a non-foam and non-rubber material, and the reinforcing structure is at least partially recessed into the barrier material and bonded to the barrier material. The reinforcing structure extends adjacent to at least a sidewall of the bladder.

The Office Action rejects independent claim 1 as being anticipated by Chi and also anticipated by Pavone. In contrast with Chi and Pavone, independent claim 1 recites that the

reinforcing structure is formed of a non-foam and non-rubber material. Chi does not specifically state the material utilized for the outsole, but some outsoles of the type of footwear disclosed in Chi are often formed from rubber materials. Pavone states that the molding is formed from a rubber foam. Accordingly, neither Chi nor Pavone teach a reinforcing structure formed of a non-foam and non-rubber material.

Based upon the above discussion, the Applicants respectfully submit that independent claim 1 is allowable over Chi and Pavone. In addition, claims 2-5, 7-10, and 12-15 should be allowable for at least the same reasons.

Discussion of Independent Claim 16

Independent claim 16 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a pressurized fluid. The bladder has a first surface, an opposite second surface, and a sidewall extending between the first surface and the second surface. The reinforcing structure is bonded to the bladder and includes a first portion, a second portion, and a plurality of connecting portions. The first portion is positioned at an interface of the first surface and the sidewall, and the first portion extends along a lateral side of the bladder, around a heel region of the bladder, and along a medial side of the bladder. The second portion is spaced from the first portion and positioned at an interface of the second surface and the sidewall. The second portion extends along the lateral side, around the heel region, and along a medial side of the bladder. The connecting portions extend along the sidewall and between the first portion and the second portion, and the connecting portions are recessed into sidewall. In addition, the reinforcing structure is formed of a material with a greater modulus of elasticity than the barrier material, and at least one of the connecting portions is in tension when the sole component is in an uncompressed state to restrict distension of the sidewall due to an outward force induced by the pressurized fluid.

The Office Action rejects independent claim 16 as being obvious in view of Chi and also obvious in view of Pavone. In contrast with Chi and Pavone, however, independent claim 16 recites that the reinforcing structure is formed of a material with a greater modulus of elasticity than the barrier material. Prior to discussing Chi and Pavone in detail, the Applicants would like to clarify this recitation of independent claim 16. The bladder is formed of a barrier material that

encloses a pressurized fluid. The bladder is, therefore, a combination of the barrier material and the fluid. Independent claim 16 does not recite that the reinforcing structure is formed of a material with a greater modulus of elasticity than *the bladder*. Rather, independent claim 16 recites that the reinforcing structure is formed of a material with a greater modulus of elasticity than *the barrier material*. Accordingly, the material of the reinforcing structure has a greater modulus of elasticity than the barrier material itself.

In Chi, the air cushion is made from a polyurethane material that encloses a fluid, and the outsole is made from a material with a hardness that is greater than a hardness of the air cushion. (Chi, column 3, lines 32-34 and 54-55). These statements regarding the materials forming the air cushion and the outsole do not teach or suggest that the outsole is formed of a material with a greater modulus of elasticity than the polyurethane material. Regarding Pavone, the core is formed from a silicone material (Pavone, column 2, lines 52-53), whereas the molding is formed from a rubber foam (Pavone, column 3, lines 46-47). Similarly, these statements regarding the materials forming the core and the molding do not teach or suggest that the molding is formed of a material with a greater modulus of elasticity than the core.

In contrast with Chi and Pavone, independent claim 16 also recites that at least one of the connecting portions is in tension when the sole component is in an uncompressed state. Prior to discussing Chi and Pavone, the Applicants would like to present an analogy for purposes of understanding the following discussion. If a piece of adhesive tape is bonded to a balloon prior to inflation, then the tape will be placed in tension as the balloon is inflated and the material of the balloon expands. If, however, the piece of tape is bonded to the balloon following inflation, then the tape will generally be in a non-tensioned state. With reference to the above discussion of Chi, it is apparent that the air cushion is inflated prior to bonding between the air cushion and the outsole. As with the tape analogy, this manufacturing method likely results in a configuration wherein the outsole is in a non-tensioned state. Regarding Pavone, the inflated core is placed within a mold and a foam is injected into the mold and around the core to shape the molding. Similarly, and as with the tape analogy, this manufacturing method likely results in a configuration wherein the molding is in a non-tensioned state.

Even if, however, the general manufacturing processes described in Chi and Pavone could be utilized to form the outsole or molding to be in tension (which the Applicants do not

concede), neither of Chi and Pavone teach or suggest that the outsole or molding may be in tension following manufacturing.

Based upon the above discussion, the Applicants respectfully submit that independent claim 16 is allowable over each of Chi and Pavone. In addition, claims 17-19, 21, and 23-24 should be allowable for at least the same reasons.

Discussion of Independent Claim 25

Independent claim 25 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a pressurized fluid. The reinforcing structure is at least partially recessed into the barrier material and bonded to the barrier material. A portion of the reinforcing structure extends adjacent to at least a sidewall of the bladder, and the portion of the reinforcing structure is in tension when the sole component is in an uncompressed state due to an outward force upon the barrier material induced by the pressurized fluid.

In contrast with Chi and Pavone, independent claim 25 recites that the portion of the reinforcing structure is in tension when the sole component is in an uncompressed state. Prior to discussing Chi and Pavone, the Applicants would like to present an analogy for purposes of understanding the following discussion. If a piece of adhesive tape is bonded to a balloon prior to inflation, then the tape will be placed in tension as the balloon is inflated and the material of the balloon expands. If, however, the piece of tape is bonded to the balloon following inflation, then the tape will generally be in a non-tensioned state. With reference to the above discussion of Chi, it is apparent that the air cushion is inflated prior to bonding between the air cushion and the outsole. As with the tape analogy, this manufacturing method likely results in a configuration wherein the outsole is in a non-tensioned state. Regarding Pavone, the inflated core is placed within a mold and a foam is injected into the mold and around the core to shape the molding. Similarly, and as with the tape analogy, this manufacturing method likely results in a configuration wherein the molding is in a non-tensioned state.

Even if, however, the general manufacturing processes described in Chi and Pavone could be utilized to form the outsole or molding to be in tension (which the Applicants do not concede), neither of Chi and Pavone teach or suggest that the outsole or molding may be in tension following manufacturing.

Based upon the above discussion, the Applicants respectfully submit that independent claim 25 is allowable over each of Chi and Pavone.

Discussion of Independent Claims 26 and 27

Independent claim 26 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a fluid. The reinforcing structure is at least partially recessed into the barrier material and bonded to the barrier material, and the reinforcing structure extends adjacent to at least a sidewall of the bladder. The reinforcing structure is formed of a material with a greater modulus of elasticity than the barrier material. Similarly, independent claim 27 recites that the reinforcing structure is formed of a material with greater stiffness than the barrier material.

In contrast with Chi and Pavone, independent claims 26 and 27 respectively recites that the reinforcing structure is formed of a material with a greater modulus of elasticity and stiffness than the barrier material. In Chi, the air cushion is made from a polyurethane material that encloses a fluid, and the outsole is made from a material with a hardness that is greater than a hardness of the air cushion. (Chi, column 3, lines 32-34 and 54-55). These statements regarding the materials forming the air cushion and the outsole do not teach or suggest that the outsole is formed of a material with a greater modulus of elasticity or stiffness than the polyurethane material. Regarding Pavone, the core is formed from a silicone material (Pavone, column 2, lines 52-53), whereas the molding is formed from a rubber foam (Pavone, column 3, lines 46-47). Similarly, these statements regarding the materials forming the core and the molding do not teach or suggest that the molding is formed of a material with a greater modulus of elasticity or stiffness than the core.

Based upon the above discussion, the Applicants respectfully submit that independent claims 26 and 27 are allowable over each of Chi and Pavone.

Discussion of Independent Claim 28

Independent claim 28 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a pressurized fluid. The bladder has a first surface, an opposite second

surface, and a sidewall extending between the first surface and the second surface. The reinforcing structure is bonded to the bladder, and the reinforcing structure includes a first portion, a second portion, and a plurality of connecting portions. The first portion is positioned at an interface of the first surface and the sidewall. The second portion is spaced from the first portion and positioned at an interface of the second surface and the sidewall. The plurality of connecting portions extend adjacent to the sidewall and between the first portion and the second portion, and the connecting portions being recessed into sidewall. The sidewall has a first area that is covered by the connecting portions and a second area that is exposed to an exterior of the sole component, the first area being less than the second area.

In contrast with Chi and Pavone, independent claim 28 recites that the area of the sidewall covered by the connecting portions is less than the area of the sidewall that is exposed to an exterior of the sole component. In Chi, an entirety of a sidewall is covered by the outsole. In Pavone, a relatively small area is exposed by apertures in the molding. In neither Chi nor Pavone, therefore, the area of a sidewall covered by connecting portions is less than the area of the sidewall that is exposed to an exterior.

Based upon the above discussion, the Applicants respectfully submit that independent claim 28 is allowable over each of Chi and Pavone.

Discussion of Independent Claim 29

Independent claim 29 recites a sole component for an article of footwear. The sole component includes a bladder and a reinforcing structure. The bladder is formed of a barrier material that encloses a fluid. The reinforcing structure is at least partially recessed into the barrier material and bonded to the barrier material. An exposed surface of the bladder is exposed to an exterior of the sole component, and an exposed surface of the reinforcing structure is exposed to the exterior of the sole component. The exposed surface of the bladder is substantially co-planar with the exposed surface of the reinforcing structure at an interface between the exposed surface of the bladder and the exposed surface of the reinforcing structure.

In contrast with Chi and Pavone, independent claim 29 recites that the exposed surface of the bladder is substantially co-planar with the exposed surface of the reinforcing structure at an interface between the exposed surface of the bladder and the exposed surface of the reinforcing structure. That is, exposed portions of the bladder and the reinforcing structure are co-planar at

an interface of the bladder and reinforcing structure. Referring to Figure 4 of Chi, the outsole extends adjacent to the exterior surfaces of the air cushion, but is not depicted as being co-planar with a surface of the air cushion. Referring to Figures 3 and 4 of Pavone, the exposed surfaces of the core are spaced inward from the exposed surfaces of the molding, and these surfaces are not co-planar. Accordingly, neither Chi nor Pavone teach or suggest the recitation of independent claim 29.

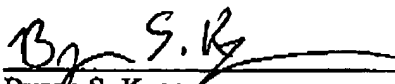
Based upon the above discussion, the Applicants respectfully submit that independent claim 29 is allowable over each of Chi and Pavone. In addition, claim 30 should be allowable for at least the same reasons.

VI. Conclusion

In view of the foregoing, the Applicants respectfully submit that all claims are in a condition for allowance. The Applicants respectfully request, therefore, that the rejections be withdrawn and that this application now be allowed.

This Amendment is being timely filed by facsimile transmission on December 20, 2005, with a one month petition for extension of time. Should additional fees or an extension of time be deemed necessary for consideration of this Amendment, such fees or extension are hereby requested and the Commissioner is authorized to charge deposit account number 19-0733 for payment. If anything further is desirable to place the application in even better form for allowance, the Examiner is respectfully requested to telephone the undersigned representative at (503) 425-6800.

Respectfully submitted,

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